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### 54] TOUCH PANEL SYSTEM AND METHOD FOR USING SAME

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[56] **F** 

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ITW Entrex Brochure for Cyclops Touch Screen Device, at least 2-27-85 or earlier.

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#### [57] ABSTRACT

The touch panel system of the present invention is adapted for use with a rectangular screen for locating an object placed adjacent the face of the screen. The touch panel includes first and second sources of directional beams, first and second movable beam deflectors positioned in spaced relation to one another, and being movable in a scanning pattern for causing the first and second beams each to be deflected in a scanning pattern which sweeps angularly in a predetermined sweep time interval across the face of the rectangular screen. A reflector is positioned around the screen in such a manner as to be in the path of the beams as they are deflected by the first and second deflectors, and being capable of reflecting the beams at an angle of 180° with respect to the angle at which they strike the reflector. First and second scan detectors are used to detect the end of each sweep of the beams. First and second bend detectors are adapted to sense an interruption in the beams in response to the object being placed adjacent the face of the screen. A controller is connected to the scan detector and the bend detector for calculating the angular positions of the beams at the time they are interrupted by the object and for calculating the position of the object on the screen at that time.

## 12 Claims, 4 Drawing Sheets

